I claim:

1. A method for generating a natural colour image comprising the steps of generating a greenness band from a multispectral image including blue, green, red and near infrared bands and adjusting the green band using the greenness band.

2. A method according to claim 1 wherein the greenness band is generated mathematically using the equation:

$$GN = (NIR_{Orig} - R_{Orig} - \lambda) / s$$

where GN is a greenness band, NIR_{Orig} is an original near infrared band, R_{Orig} is an original red band, λ is a threshold and s is a scale factor.

3. A method according to claim 1, wherein the green band is adjusted mathematically using the equation:

$$G_{Adj} = G_{Orig} + GN$$

where G_{Adj} is an adjusted green band, G_{Orig} is an original green band and GN is a greenness band.

4. A method for generating a pan-sharpened natural colour image comprising the steps of generating a greenness band from pan-sharpened image bands including blue, green, red and near infrared bands and adjusting the pan-sharpened green band using the greenness band.

5. A method according to claim 4, wherein the greenness band is mathematically generated using the equation:

$$GN_H = (NIR_{PS} - R_{PS} - \lambda) / s$$

where GN_H is a high resolution greenness band, NIR_{PS} is a pan-sharpened near infrared band, R_{PS} is a pan-sharpened red band, λ is a threshold and s is a scale factor.

6. A method for generating a pan-sharpened natural colour image comprising the steps of generating a greenness band from a panchromatic image and a pan-sharpened red band; and adjusting the pan-sharpened green band using the greenness band.

7. A method according to claim 6, wherein the greenness band is mathematically generated using the equation:

$$GN_H = (Pan_{Orig} - R_{PS} - \lambda) / s$$

where GN_H is a high resolution greenness band, Pan_{Orig} is an original panchromatic band, R_{PS} for pan-sharpened red band, λ is a threshold and s is a scale factor.

8. A method according to claim 4, wherein the pan-sharpened green band is adjusted mathematically using the equation:

$$G_{HAdj} = G_{PS} + GN_H$$

where G_{HAdj} is an adjusted pan-sharpened green band, G_{PS} is an pan-sharpened green band and GN_H is a high resolution greenness band.

9. A method according to claim 1, wherein the greenness band is generated using an equation selected from the group comprising :

$GN = (NIR_{Orig} - G_{Orig} - \lambda) / s$ and

$GN = (NIR_{Orig} - B_{Orig} - \lambda) / s$,

where GN is a greenness band, NIR_{Orig} is an original near infrared band, G_{Orig} is an original green band, B_{Orig} is an original blue band, λ is a threshold and s is a scale factor.

10. A method according to claim 1, wherein the greenness band is generated using an equation selected from the group comprising:

$GN_H = (NIR_{PS} - G_{PS} - \lambda) / s$ and

$GN_H = (NIR_{PS} - B_{PS} - \lambda) / s$,

where GN_H is a high resolution greenness band, NIR_{PS} is a pan-sharpened near infrared band, G_{PS} is a pan-sharpened green band, B_{PS} is a pan-sharpened blue band, λ is a threshold and s is a scale factor.

11. A method according to claim 1 , wherein the greenness band is generated using an equation selected from the group comprising :

$GN_H = (Pan_{Orig} - G_{PS} - \lambda) / s$ and

$GN_H = (Pan_{Orig} - B_{PS} - \lambda) / s$,

where GN_H is a high resolution greenness band, Pan_{Orig} is an original panchromatic band, G_{PS} for pan-sharpened green band, B_{PS} for pan-sharpened blue band, λ is a threshold and s is a scale factor.

12. A method according to claim 7 , wherein the greenness bands are generated using an equation selected from the group comprising:

$GN_H = (Pan_{Orig} - G_{PS} - \lambda) / s$ and

$GN_H = (Pan_{Orig} - B_{PS} - \lambda) / s$,

where GN_H is a high resolution greenness band, Pan_{Orig} is an original panchromatic band, G_{PS} for pan-sharpened green band, B_{PS} for pan-sharpened blue band, λ is a threshold and s is a scale factor.